(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **08260176 A**
(43) Date of publication of application: **08.10.1996**

(51) Int. Cl **C25B 9/00**

(21) Application number: **07090287**
(22) Date of filing: **23.03.1995**

(71) Applicant: **MITSUBISHI CORP**
SHINKO PANTEC CO LTD
(72) Inventor: **HARADA MICHIYUKI**
SASAKI TAKASHI
HIRAI SEIJI
YASUI SHINICHI
KOBAYASHI HIROKO
NAGAO MAMORU

(54) HIGH-PURITY GASEOUS HYDROGEN AND OXYGEN GENERATOR

(57) Abstract:

PURPOSE: To enhance the reliability and safety of the generator by detecting the vertical position of a permanent magnet provided to a float and controlling respective water discharge valves in accordance with the detection signal.

CONSTITUTION: Pure water is supplied to a water electrolytic cell 1 from a pure water producer 6 through a pipe 7, a DC current is applied between the electrodes in the cell 1 from a power source 2, and the pure water is electrolyzed. The oxidized gas thus generated is introduced into a first gas-liq. separator 8 through a pipeline 9 and separated into pure water and gaseous oxygen. Hydrogen is introduced into a second separator 10 through a pipeline 11 and separated into pure water and hydrogen. A float moving up and down with the water level is provided in the separators 8 and 10. A permanent magnet is furnished to each float, and the vertical position of the magnet is detected with a detection means provided outside the separators 8 and 10. Water discharge valves 30 and 31 are controlled by a water level controller 24 in accordance with the detection value from the detection means. The exertion of a large differential pressure on a water electrolytic membrane as the water is discharged is prevented.